PART B

Background: schema, datatypes, and schema relationships:
Assume any database (MySQL/PostgresSQL/MSSQL), server timezone is IST.

Table Name: Mutual_Fund_Transaction_Table

Column Name	Datatype
Transaction_Id	Integer
Customer_id	Integer
Transaction_Type	Enum('Purchase','Sale')
NAV Value	Integer
No_of_Units	Integer
Transaction_Time	Timestamp
Transaction_Status	Enum ('Success','Failed','Pending')

Table Name : Customer_Details

Column Name	Datatype
Customer_Id	Integer
Customer_Name	Character Varying
Customer_PAN	AlphaNumeric
Banned	Boolean (Banned = 1)
Customer_Join_Time	Timestamp
Gender	Enum('Male','Female')

PROBLEMS:-

1. Find the customer with the highest transaction value as of today.
Consider :
• Transaction_Status = 'Success'
• Transaction_Type = 'Purchase'
• Transaction_Value = NAV_Value * No_of_Units

```
SELECT Customer_Name FROM (SELECT Customer_Name,
MAX(NAV_Value * No_of_Units) AS Max_Transaction
FROM Customer_Details
LEFT OUTER JOIN Mutual_Fund_Transaction_Table
ON Customer_Details.Customer_Id =
Mutual_Fund_Transaction_Table.Customer_id
WHERE Transaction_Status = 'Success'
AND Transaction_Type = 'Purchase');
```

2.Count of successful transactions in the month of April – 2019

```
SELECT COUNT(*) FROM Mutual_Fund_Transaction_Table
WHERE Transaction_Status = 'Success'
AND Transaction_Time >= '2019-04-01' AND Transaction_Time <
'2019-05-01';
```

3. Number of new customers in the month of Jan – 2019, who are not banned as of now and have made more than 4 purchases.

```
SELECT Customer_id FROM (SELECT COUNT(*) AS ct,
Mutual_Fund_Transaction_Table.Customer_id FROM
Mutual_Fund_Transaction_Table
INNER JOIN Customer_Details
ON Mutual_Fund_Transaction_Table.Customer_id =
Customer_Details.Customer_Id
WHERE banned = 0 AND Customer_Join_Time >= '2019-01-01'
AND Customer_Join_Time < '2019-02-01'
GROUP BY Mutual_Fund_Transaction_Table.Customer_id)
WHERE ct > 4;
```

4. First 5 Rows of top paying Male & Female customers

```
SELECT * FROM (SELECT SUM(NAV_Value*No_of_Units) AS X,
Customer_Details.Gender,Mutual_Fund_Transaction_Table.Customer_id
FROM Mutual_Fund_Transaction_Table
INNER JOIN Customer_Details
ON Mutual_Fund_Transaction_Table.Customer_id =
Customer_Details.Customer_Id
WHERE Customer_Details.Gender = "Male"
GROUP BY Customer_Details.Customer_Id
ORDER BY X)
LIMIT 2
;
```